

05–225 Grinding camshaft bearing journals

Data

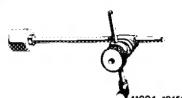
| | | | |
|---|--|----------------|--|
| Roughness of camshaft bearing journals | | 0.003 | |
| Permissible runout of center bearing journals and camshaft sprocket seat when mounting camshaft at outer bearing journals | Camshaft code number ¹⁾ | 00 | 05, 08 |
| | Camshaft sprocket seat | 0.020 | 0.025 |
| | 2nd bearing point | 0.030 | 0.030 |
| | 3rd bearing point | 0.025 | 0.030 |
| Scleroscope hardness of cams | | 70–82 | 64–75 |
| Bearing points (Fig.) | | a | b, c and d |
| | Camshaft bearing dia. | 35.00 35.02 | 46.50 46.52 49.00 ²⁾ 49.02 |
| Standard dimension | Journal dia. | 34.95 34.93 | 46.45 46.43 48.95 ²⁾ 48.93 |
| | Camshaft bearing dia. (color code grey) | 34.90 34.92 | 46.40 46.42 48.90 ²⁾ 48.92 |
| Intermediate stage | Journal dia. | 34.85 34.83 | 46.35 46.33 48.85 ²⁾ 48.83 |
| | Camshaft bearing dia. (color code red) | 34.75 34.77 | 46.25 46.27 48.75 ²⁾ 48.77 |
| Repair stage I | Journal dia. | 34.70 34.68 | 46.20 46.18 48.70 ²⁾ 48.68 |
| Width A of journal a (Fig.) | | 34.00 34.04 | — |
| Bearing play | radial | 0.050–0.084 | |
| | axial | 0.07–0.15 | |

¹⁾ Code number is punched into rear end of camshaft.

²⁾ Camshaft bearings and journal dia. on engine 617.950 (USA) model year 1980 with increased output and engines 617.951/952.

Special tool

Dial gage holder for end play of camshaft (2 each)



363 589 02 21 00

Conventional tool

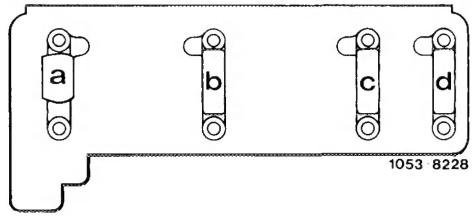
Dial gage A 1 DIN 878

e.g. made by Mahr, D-7300 Esslingen
Order No. 810

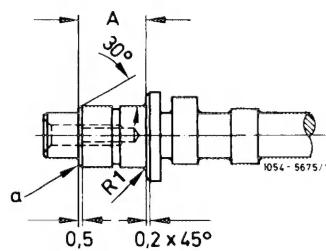
Note

In the event of repairs, regrind camshaft in accordance with available camshaft bearings.

Camshaft bearing journals are not hardened.

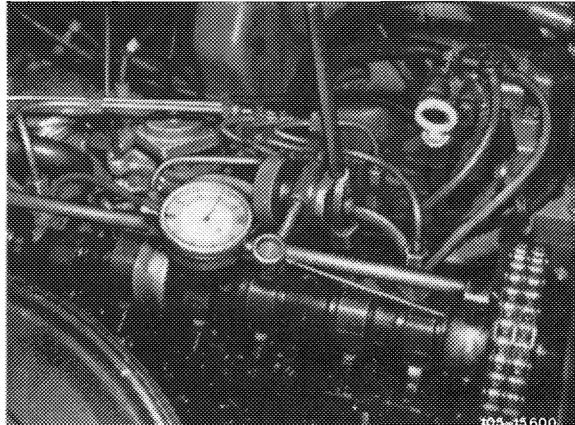


If dimension A is exceeded when grinding 1st bearing journal, also regrind face a.



Measuring end play

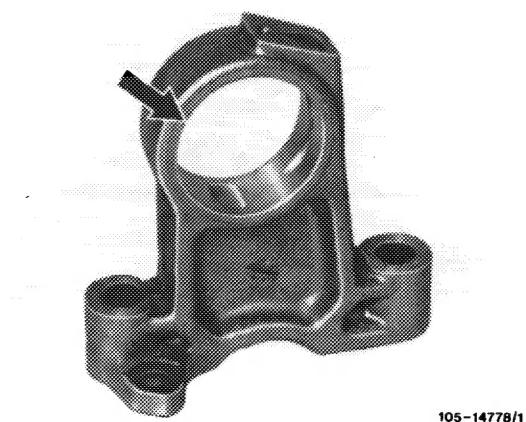
- 1 Screw on dial gage holder with threaded sleeve at front left.
- 2 Position dial gage at approx. 3 mm preload against thrust flange of camshaft.
- 3 Push camshaft toward the rear and set large needle to zero.



- 4 Push camshaft forward and determine end play.

Note: If the end play is too low, touch up 1st camshaft bearing at its face surfaces (arrow).

If the end play is too high, regrind face a on 1st bearing journal of camshaft.



105-14778/1